

SILICON NITRIDE/SILICON CARBIDE NANO-NANO COMPOSITES

ABSTRACT OF THE DISCLOSURE

Densified composites of silicon nitride and silicon carbide that exhibit high creep resistance are obtained by mechanically activating a mixture of amorphous powders of silicon nitride and silicon carbide and sintering the mechanically activated mixture in the presence of an electric field under high pressure. The grain size in the resulting composite is less than 100 nanometers for all components of the composite, and the composite exhibits high creep resistance.

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